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STANDING COMMITTEE ON WATER RESOURCES

(2014-15)

SIXTEENTH LOK SABHA

MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION.

DEMANDS FOR GRANTS (2015-16)

THIRD REPORT

LOK SABHA SECRETARIAT

NEW DELHI

April, 2015/Vaisakha,1937 (Saka)

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MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION.

DEMANDS FOR GRANTS
(2015-16)

Presented to Lok Sabha on 27.04.2015

Laid on the Table of Rajya Sabha on 27.04.2015

LOK SABHA SECRETARIAT
NEW DELHI

April, 2015/Vaisakha,1937 (Saka)

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STANDING COMMITTEE ON WATER RESOURCES
(2014-15)

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Shri Hukum Singh - Chairperson

LOK SABHA

2. Shri Radheshyam Biswas
3. Shri Devusinh Chauhan
4. Prof. Sanwar Lal Jat*
5. Shri Sukhbir Singh Jaunapuria
6. Shri Tariq Hameed Karra
7. Shri Vinod Kumar B.
8. Shri Murali Mohan Maganti
9. Shri Sidhant Mohapatra
10. Shri Abhijit Mukherjee
11. Shri Rodmal Nagar
12. Shri Subhash Patel
13. Shri Sanjay Kaka Patil
14. Shri Vijaysinh Shankarrao MohitePatil
15. Smt. Aparupa Poddar
16. Shri Vishnu Dayal Ram
17. Shri S. P. Y. Reddy$
18. Shri Ram Prasad Sarmah
19. Smt. Sathyabama V.
20. Shri Lallu Singh
21. Shri L.K. Vaghela
22. Smt. Dimple Yadav

RAJYA SABHA

23. Shri Balwinder Singh Bhunder
24. Shri Anil Madhav Dave
25. Smt. Naznin Faruque
26. Shri Sanjiv Kumar
27. Prof. Mrinal Miri
28. Dr. K. Keshava Rao#
29. Shri V. Hanumantha Rao
30. Shri A.V. Swamy
31. Shri Lal Sinh Vadodia

Ceased to be a Member w.e.f. 08.10.2014.

***** Ceased to be a Member w.e.f. 10.11.2014 on his appointment as a Union Minister of State.

$ Appointed as a Member w.e.f. 22.12.2014

SECRETARIAT

1.	**Shri A.K. Singh**	**-**	**Joint Secretary**
2.	**Shri S. Chatterjee**	**-**	**Director**
3.	**Smt. Rita Jailkhani**	**-**	**Additional Director**
4.	**Smt. Shanta Datta Bannerjee**	**-**	**Sr. Committee Assistant**

INTRODUCTION

I, the Chairperson, Standing Committee on Water Resources (2014-15) having been authorised by the Committee to submit the Report on their behalf, present the Third Report on Demands for Grants (2015-16) of the Ministry of Water Resources, River Development and Ganga Rejuvenation.

2. The Demands for Grants have been examined by the Committee under Rule 331E(1)(a) of the Rules of Procedure and Conduct of Business in Lok Sabha.

3. The Committee took evidence of the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation on 27 March, 2015.

4. The Report was considered and adopted by the Committee at their sitting held on 22 April, 2015.

5. The Committee wish to express their thanks to the representatives of the Ministry of Water Resources, River Development and Ganga Rejuvenation for providing them the requisite written material and for oral depositions in connection with the examination of the subject.

6. The Committee would also like to place on record their sense of deep appreciation for the assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

NEW DELHI
22 April, 2015
02 Vaisakha, 1936 (Saka)

HUKUM SINGH,
Chairperson,
Standing Committee on Water Resources

CHAPTER I

BUDGETARY ALLOCATIONS

1.1 Our country is endowed with a rich and vast diversity of natural resources, water being the most precious of them. Water security, water management and its development is of immense importance in all walks of human life and also of all living beings. Integrated water management is essential for environmental sustenance, sustainable economic development of the country and for bettering human life through poverty reduction.

1.2 The Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD & GR), Government of India, is responsible for conservation, management and development of water as a national resource; overall national perspective of water planning and co-ordination in relation to diverse uses of water; general policy, technical assistance, research and development, training and matters relating to irrigation and multi-purpose projects, ground water management; conjunctive use of surface and ground water, command area development, flood management including drainage, flood-proofing, water logging, sea erosion and dam safety.

1.3 The Ministry has also been allocated the subject of regulation and development of inter-State rivers, implementation of awards of Tribunals, water quality assessment, bilateral and external assistance and co-operation programmes in the field of water resources and matters relating to rivers common to India and neighbouring countries.

1.4 Recently a new mandate of rejuvenation of Ganga and its tributaries has been assigned to the Ministry.

Analysis of Demands for Grants (2015-16)

1.5 The detailed Demands for Grants in Demand No. 107 of the MoWR, RD&GR was laid on the table of Lok Sabha on 19 March, 2015. A total budgetary provision of Rs. 6,381.03 crore has been made for year 2015-16. The following table shows the allocation of Budget for the MoWR, RD&GR:-

Table -1: Demands for Grants (2015-16)
(Demand No. 107) **(Rs. in crore/gross)**

	Revenue	Capital	Total
Charged	**1.00**	**.10**	**1.10**
Voted	**6234.21**	**145.72**	**6379.93**
Total	**6235.21**	**145.82**	**6381.03**

1.6 Total Demand is Rs. 6381.03 crore which comprises Rs. 6235.21 crore on Revenue section and Rs. 145.82 crore on Capital section. In comparison to last year there is a decrease of Rs. 8907.90 crore on Revenue section and Rs. 86.81 crore on Capital section which were Rs. 15,143.11 crore and Rs. 232.63 crore respectively on Revenue and Capital sections. Thus the total Demand has shown a decrease of Rs. 8,994.71 crore this year. The details of allocation of funds under Plan and Non-Plan sections pertaining to the MoWR, RD&GR since the year 2013-14 are given below:

Table -2: Allocation of funds under Plan and Non-Plan since 2013-14

(Rs. in crore/gross)

Year	Plan	Non-Plan	Total
2013-14 (BE)	1,512.00	590.65	2,102.65
2013-14 (RE)	724.40	555.10	1,279.50
2013-14 (Actual)	543.52	551.19	1094.71
2014-15 (BE)	14,762.00	613.74	15,375.74
2014-15 (RE)	6,912.00	628.83	7,540.83
2014-15 (Actual)	4,029.84	575.54	4,605.38
2015-16 (BE)	5,732.00	649.03	6,381.03

1.7 The budgetary allocation of funds during the year 2014-15 was Rs. 15,375.74 crore which was reduced to Rs. 7,540.83 crore at RE stage. The actual utilization of funds was even lesser at Rs. 4,605.38 crore. When asked to furnish reasons for drastic reduction in allocated funds, the Ministry, replied as under:

> "A number of new schemes were transferred from Ministry of Environment, Forest & Climate Change apart from some new schemes announced in the Budget 2014-15. Due to the non-approval of these schemes up to September 2014, expenditure could not be incurred. Also in respect of Centrally sponsored schemes, due to non-allocation of Budget by the States up to September 2014, project proposals were not submitted by the States up to September 2014 and therefore expenditure could not be incurred up to September 2014. For this reason Ministry of Finance curtailed the Budget in the RE stage".

1.8 Asked further to specify measures taken to ensure more realistic budgetary projections, the Ministry, in their reply, furnished as under:

> "The approval in respect of the new schemes announced in the Budget 2014-15 and those transferred from Ministry of Environment, Forest & Climate Change have

been approved in 2014-15 itself. Also in respect of the Centrally Sponsored Schemes, the guidelines have been simplified. As a result of these steps, substantial expenditure will be incurred in 2015-16. Moreover, Hon'ble Minister (WR,RD&GR) is taking regular meetings to monitor the expenditure."

1.9 In reply to a further query with regard to reduction in total budgetary allocation by Rs. 8,994.71 crore in 2015-16 as against previous year, the Ministry replied as under:

"Ministry of Finance is making Scheme-wise allocations based on availability of resources available with Government of India. Scheme-wise BE 2014-15, RE 2014-15 and BE 2015-16 is given as under:

Table - 3 :Statement showing the BE (2014-15), RE (2014-15) and BE (2015-16) of Plan Schemes

(Rs. in crore)

Sector / Orgnisation / Scheme	**B.E.**	**R.E**	**B.E.**
	2014-15	**2014-15**	**2015-16**
Central Sector Schemes			
I. Medium Irrigation			
1. Research & Development Programme	50.00	34.55	30.00
2. Development of Water Resources Information System	225.38	79.99	80.99
3. Infrastructure Development	2.90	1.92	2.00
4. Hydrology Project	31.38	24.55	10.00
5. Human Resource Development/Capacity Building	43.00	23.10	22.00
6. River Basin Management	107.00	78.00	45.20
7. Implementation of National Water Mission	40.00	1.45	20.00
8. Irrigation Management Programme	1.00	0.00	1.00
9. Dam Rehabilitation and Improvement Programme (DRIP)	30.00	14.30	29.00
10. Bodwad Parisar Sinhan Yojana	200.00	66.67	1.00
11. Impact Study Assessment of Project (AIBFMP)	50.00	0.05	5.00
12. Polavaram Project Authority (new scheme from 2014-15)	250.00	250.00	100.00
13. DPR for interlinking of Rivers	100.00	10.00	100.00

Total:	**1130.66**	**584.58**	**446.19**
II. Minor Irrigation			
Surface Water Schemes			
14. Ground Water Management and Regulation	325.00	143.00	163.00
15. Human Resource Development/Capacity Building	7.00	6.00	7.00
16. Infrastructure Development	48.60	5.49	9.00
17. Development of Water Resources Information System	0.02	0.01	0.01
Total:	**380.62**	**154.50**	**179.01**
III. Flood Control Sector			
18. Flood Forecasting	100.00	30.00	50.00
19. Infrastructure Development	28.50	17.10	6.00
20. River Management Activities and works related to Border Rivers	175.00	115.26	102.00
21. River Basin Management	143.00	80.00	73.80
Total:	**446.50**	**242.36**	**231.80**
IV. Transport Sector			
22. Farakka Barrage Project	**150.00**	**85.00**	**100.00**
V. Ecology and Environment (New Schemes 2014-15)			
24. National River Conservation Plan	537.00	453.00	550.00
25. National Ganga Plan (met from balance under NCEF)	1500.00	1500.00	2100.00
	-1500.00	-1500.00	-2100.00
26. Ghat works for beautification of River fronts	100.00	100.00	100.00
27. Water Projects for NCT	500.00	500.00	0.00
Total:	**1137.00**	**1053.00**	**650.00**
VI. Centrally Sponsored Schemes			
20. Accelerated Irrigation & Flood Management Programme	8992.22	3276.56	1000.00
14. Pradhan Mantri Krishi Sinchai Yojana	50.00	0.00	100.00
	950.00	4.00	900.00
Total:	**9992.22**	**3280.56**	**2000.00**
GRANT TOTAL	**13237.00**	**5400.00**	**3607.00**

1.10 When asked about the reasons for substantial reduction of allocation under the Schemes of Medium Irrigation, Flood Control, Transport sector and Centrally Sponsored Schemes during the year 2014-15, the Ministry, in their post evidence reply, stated as under:

> "The Ministry make budgetary projections based on the actual demands in respect of each scheme. Ministry of Finance makes budgetary allocations as per inter-se priorities of Government and actual resources available. All around efforts are being made to ensure the full utilization of funds and thus avoid curtailment of the fund at RE Stage."

1.11 The details of year-wise allocation of funds and expenditure under Plan section, since the year 2012-13 is as given under:

Table-4: Year-wise allocation of funds and expenditure under Plan section

(Rs. in crore)

Year	BE	RE	Actual
2012-13	1500.00	650.00	512.98
2013-14	1500.00	700.00	530.73
2014-15	13,237.00	5,400.00	4,018.31
2015-16	3607.00		

1.12 Asked about the basis for making budgetary estimates, the Ministry, in their post evidence reply stated as under:

> "Budgetary Estimates are prepared based on whether EFC/ Cabinet Note in respect of the proposed works have been approved and based on the works carried forward from the previous years."

1.13 When the Committee desired to know why budgetary estimates always exceeded actual expenditure, the Secretary, MOWR, RD&GR during his deposition before the Committee stated as below:

> "I fully agree that there is a major problem here. Last year, the Budget was Rs 13,237 crore which was slashed down in RE to Rs 5,400 crore. It was partly because the systems were not sufficiently in place at that time to have that pace of expenditure. So, by September, our expenditure level was not up to the requisite level. Then, after that we picked up and the expenditure shot up many times. Somehow, the Finance Ministry, the way they work, they take the figures of expenditure up to a certain time. Then they make projection and the Revised Estimate without factoring in other things like procedures, committed liabilities and many other things. It is generally based on a simple mathematical calculation which does not conform to the real expectations and requirements...In fact, we need much more money than what has been provided in our Revised Estimate by the ceilings. There is a problem here. We also have accumulated claims of previous years. As per a rough estimate, we would have accumulated claimsof the order of about Rs 8,000 crore. In the budget figure that we have-Rs 3607 crore for the next year, there are certain components which have been fixed. As a result of this, the money that we are getting in some of our crucial schemes like AIBP is down to Rs 1,000 crore only."

Approvals by Expenditure Finance Committee (EFC)

1.14 During the examination of Demands for Grants of the previous years, the Committee observed that lack of timely approvals by Expenditure Finance Committee (EFC) had resulted in non-utilization/under-utilization of funds in many schemes/projects. Therefore, they have been recommending the Ministry to take appropriate measures for timely approvals.

1.15 When asked about the concrete efforts taken by the Ministry for getting speedy approvals/ sanctions from the Expenditure Finance Committee, for incurring expenditure under various Schemes, the Ministry in their written submission, stated as under:

> " The Hon'ble Minister is holding periodic review meetings to ensure adherence to deadlines".

1.16 When queried about the role of EFC for undertaking actual expenditure after sanction of budgetary proposals by Parliament, the Ministry, in their post evidence written submission stated as under:

> "As per the orders of the Ministry of Finance, Expenditure Finance Committee (EFC) is an appraisal body and note is prepared in respect of a new scheme and/or project or a new component of an existing scheme in the beginning of the 5-Year Plan period or at any time during the Plan period. EFC note is a document which consists of the plan for implementation of the works under a scheme indicating the time schedule for completion of the works to be taken up in the scheme and expenditure targets set for each year. After appraisal by the EFC headed by Administrative Secretary or by Secretary (Exp.) (depending upon the total cost of the scheme), necessary approvals by Minister or by Finance Minister is accorded. If the cost of the scheme comes under the powers of Cabinet, a Cabinet Note is prepared and only after approval of the Cabinet the expenditure can commence. Though the amount for the new scheme/ new components of the existing schemes is earmarked at the beginning of the financial year, expenditure can commence only after the scheme is approved by the Competent Authority.

Data Bank and Information System

1.17 The objective of this programme is creation of Watershed Atlas and development of web-enabled Water Resources Information System of the country at 1:50000 scale and re-assessment of basin-wise water availability for planning of national water resources.

1.18 In pursuance of the objective of enhancing water available for use, the National Water Policy (NWP) 2012 states as below:

> "The availability of water resources and its use by various sectors in various basin and States in the country need to be assessed scientifically and reviewed at periodic intervals, say, every five years. The trends in water availability due to various factors including climate change must be assessed and accounted for during water resources planning".

1.19 When asked to furnish the data on total amount of available water resource in the country with details of surface, ground and potable water, the Ministry, in their written submission, stated as under:

> "As per the assessment done by CWC in the year 1993, the average annual water availability in the country is 1869 billion cubic meters (BCM). It is estimated that owing to topographic, hydrological and other constraints, the utilizable water with conventional approach is 1121 BCM, which comprises of 690 BCM of surface water and 431 BCM of replenishable ground water resources.
>
> It has been estimated in 2009 by Central Water Commission (CWC) that about 450 BCM of surface water and by Central Ground Water Board (CGWB) that about 243 BCM of ground water are being utilized for various purposes. The rest of the water could be considered to be flowing down to sea.
>
> The State-wise and year wise details of utilization of surface water in the country are not available with CWC".

1.20 Asked further as to whether the work of reassessment of water availability in 19 basins in the country was completed, the Ministry, in their written reply, submitted as under:

> "The administrative approval and expenditure sanction has been conveyed vide MoWR, RD & GR letter dated 30.01.2015 on the study for reassessment of water availability in India. Now, CWC is in the process of procuring the required hardware and software for the reassessment study. Meanwhile, National Remote Sensing Centre (NRSC) has given the tentative schedule for the training of CWC officers to be held at NRSC, Hyderabad during 25th May to 05th June, 2015. As the study is

to be completed within one year since date of approval of the proposal by the Ministry, there is no delay so far in the continuing study for reassessment of water availability in India".

1.21 In response to a query on establishing National Water Informatics Centre (NWIC), its functions etc., the Ministry, in their written submission, stated following:

"A committee was formed under the chairmanship of Additional Secretary (WR, RD & GR) for making recommendation on structure of NWIC in January, 2014 with its terms of reference as :

(i) To make recommendations on the modalities the National Water Informatics Centre to maintain and periodically update water related data in Water Resources Information System (INDIA WRIS) keeping in view the provisions of Inter-State Water Dispute Act 1956 (as amended in 2002) and recommendations of the Planning Commission Working Group for Water Database Development & Management for the XII Five Year Plan.

(ii) To suggest mandate of the NWIC and its organizational structure and protocol including redeployment of officers based on the job profile from CWC, CGWB and NRSC.

(iii) To suggest protocol for effective functioning of NWIC

(iv) Any other work for setting up of NWIC.

The Report has been finalized and submitted to MoWR, RD & GR for further action in July, 2014 and the committee has further recommended creation of NWIC as a Society in a meeting held on 17.12.2014 under the chairmanship of Additional Secretary (WR, RD & GR).

IFD, MoWR, RD &GR has suggested in March, 2015 to prepare fresh EFC which is under preparation.

The goal of centre is to process, organize and provide up-to-date data and information on water resources and allied themes in public domain; and develop value added products and services for integrated water resources management.

It will further serve the nation through research, capacity building, linkages, outreach and governance in water sector.

The broad objectives of the Centre are:

- Maintenance, updation, and management of national level water resources database as generated from India WRIS project and generate new datasets to achieve goals of National water policy and National Water Mission.
- Customized Information and application products generation for formulation of sound polices leading to sustainable and integrated water resources management viz. basin planning, improving water use efficiency, reducing gap between irrigation potential created & irrigation potential utilized etc.
- To provide platform for web based data processing and services to all stakeholders for water management.
- Providing technical support to various organization in development of decision support system as well as in R&D activities.
- Providing technical support to emergency response for hydrological extremes in the country, such as floods, droughts, extreme rain / snow and dam break etc.
- To undertake effective capacity building activities at institutional and professional level and awareness raising activities for targeted audience with specialized training on how to make use of India-WRIS data, information & tools, and their involvement in water resources management in the country.
- Collaboration with National and International Institutes for exchange of knowledge.
- To bring awareness amongst the stakeholders about the portal as well as involving public in populating the information system".

River Basin Management

1.22 This newly-named scheme has been formulated during financial year 2013-14 by merging two ongoing schemes, namely, River Basin Organization and Investigation of Water Resources

Development Scheme. The scheme also includes restructuring of Central Water Commission (CWC) and activities of Brahmaputra Board under the following sub-schemes:-

(i) River Basin Organizations

(ii) Investigation of Water Resources Development Scheme

(iii) Re-structuring of CWC

(iv) Brahmaputra Board

1.23 The Budget allocations and Actual Expenditure under River Basin Management (RBM) for the last two years are given below:

Table-5: Budget Allocations and Actual Expenditure under River Basin Management

(**Rs. in crore/Gross)**

Year	**BE**	**RE**	**Actuals**
2013-14	**200.00**	**150.00**	**149.87**
2014-15	**250.00**	**158.00**	**152.66**
2015-16	**119.00**		

1.24 When asked to furnish reasons for lowering the budgetary allocation under this head in BE 2015-16 by Rs. 131 crore over that of BE 2014-15, the Ministry, in their written submission, stated as under:

"Due to less allocation of funds made by the Ministry of Finance in the RE 2014-15 to the Ministry of Water Resources, River Development & Ganga Rejuvenation as

also due to the non-utilisation of provisions kept in the BE 2014-15 for some of the projects which could not be taken up due to local hindrances, forest/environment related issues and other administrative reasons".

1.25 Asked further to provide the details of various activities/projects/works which could not be started/implemented due to non-receipt of necessary approvals during the year 2014-15, the Ministry, in their written reply, submitted as under:

"The works pertaing to the Survey & Investigation of some of the projects of Inter-linking of Rivers/ Major and Medium Irrigation Projects/ Flood Management and Anti-erosion could not be taken up due to local hindrances, forest/environment related issues and other administrative reasons".

1.26 During the examination of Demands for Grants 2014-15, the Committee recommended that "a mechanism should be devised to shorten the lengthy bureaucratic procedure being followed for getting timely approval of RBM Plan scheme by CCEA in the future".

1.27 When asked about steps taken/proposed to be taken by the Government to simplify/limit the procedural requirements/necessary approvals to enable speedy and timely completion of activities/projects/works, the Ministry, in their written submission, stated as under:

"To address the various issues and to fast track the progress of the works under the Ministry, weekly review meeting is taken by the Hon'ble Minister, Water Resources, River Development & Ganga Rejuvination with the Senior Officers of the Ministry and the Departmental Heads of the Organisation under the Mnistry".

Restructuring of Central Water Commission

1.28 During the examination of Demands for Grants 2014-15, the Committee recommended "for completion of all the processes and formalities involved in the re-structuring exercise by the Ministry in a time bound manner so that a new, revamped CWC will see the light of the day, which will serve as catalyst for effective and efficient management of river basin and water resources."

However the Outcome Budget 2015-16 states that the scheme of re-structuring of CWC is under approval stage.

1.29 When queried about the benefits/improvements expected in functioning of CWC, as a result of its restructuring, the Ministry, in their written reply, stated as below:

> "The following are the broad benefits/improvements as a result of restructuring of CWC:
>
> (a) Development and management of water resource in holistic manner in tune with national perspective;
>
> (b) Strategies and adaptation measures to address the likely impact of Climate Change;
>
> (c) Effective conflict resolution with neighbouring countries/ between States/between stakeholders;
>
> (d) Efficient and time-bound appraisal of Water Resources (WR) Projects;
>
> (e) Greater coordination among decision makers, planners and stakeholders;
>
> (f) Expanded and more effective Flood forecasting;
>
> (g) Development of Master Plan for each flood-prone basin for effective flood control and Basin Management;
>
> (h) Development of solutions for other challenges of water management, water quality, coastal erosion issues etc.;
>
> (i) Rehabilitation of old dams and restoration thereof;
>
> (j) Inter-basin integration particularly for augmenting water by converting surplus flood water into utilizable water;
>
> (k) Promotion of best practices of water conservation ;
>
> (l) More research & studies to deal with new problems;
>
> (m) Capacity building and mass awareness".

1.30 When asked to furnish reasons for delay in getting approval for undertaking restructuring of CWC, the Ministry, in their reply, stated as under:

"The proposal for “restructuring of CWC” is under consideration in consultation with Ministry of Finance. The observations of Ministry of Finance, which were received, did not reflect the shared vision of CWC and MoWR, RD & GR as it completely ignored the requirements for basin-level approach for integrated water resources management and other functional needs in view of the growing challenges.

Subsequently, a presentation in this regard was held on 18.03.2015 in the Ministry wherein various aspects of the proposal were discussed. It has been decided to review and rework the proposal in view of suggestion made during the presentation and submit the same by the end of April 2015".

1.31 Asked about any time period fixed to complete the restructuring process of CWC, the Ministry further submitted following in their written reply:

" As per action plan prepared by CWC, the process for re-structuring of CWC will be completed in a period of five years after it begins its implementation".

Inter-State Water Disputes Tribunals

1.32 As per the Ministry, the Inter-State Water Disputes (ISRWD) Act, 1956 was originally enacted by Parliament in 1956 for adjudication of disputes relating to waters of inter-State rivers and river valleys. In view of the Sarkaria Commission recommendations, the said Act has been amended and came into force from 6th August, 2002. At present, 5 Inter-State Water Disputes Tribunals have been set up so far, viz. Cavery Water Disputes Tribunal (CWDT), Krishna Water Disputes Tribunal (KWDT), Vansadhara Water Disputes Tribunal (VWDT), Mahadayi/Mandavi Water Disputes Tribunal (MWDT) and Ravi & Beas Waters Tribunal (R&BWT). A cumulative expenditure of Rs. 607.98 crore was made upto 31st March, 2014 in respect of Mahadayi/Mandavi Water Disputes Tribunal (MWDT) while the cumulative expenditure for the remaining tribunals aggregated to Rs. 4937.94 crore upto December, 2014.

Budget Allocations/ EFC approvals

1.33 The Committee observe that total budgetary allocation for the year 2015-16 has been kept at Rs. 6,381.03 crore which indicates a substantial reduction of Rs. 8,994.71 crore as compared to budgetary allocations for 2014-15 and showing a reduction of Rs. 1,453.88 crore over the RE of 2014-15. The reason cited for the huge reduction in allocated funds at RE stage during 2014-15 is non-approval of new Schemes introduced in the year 2014-15 and Schemes transferred from the Ministry of Environment, Forest and Climate Change to the MoWR, RD&GR. Also due to non-submission of project proposals under Central Sector Schemes by State Governments, till September 2014, funds remained unallocated, resulting in curtailment of funds at RE stage. However, from the data on budgetary and revised allocations and actual expenditure incurred for the last three years, it is observed that budgetary estimates were never in conformity with actual requirement of funds and therefore were always scaled down at RE stage, a fact admitted by the Secretary during his evidence. Taking cognisance of this fact, the Committee have been repeatedly recommending the Ministry to revisit its budgeting exercise. The plea put forth by Ministry in this regard is that the pace of expenditure is slow in the beginning of the year due to non-completion of formalities/procedures. By the time these procedures are in place, the Ministry of Finance revises allocation. While noting the submission that budgetary estimates are based on approvals of EFC/Cabinet note and works carried forward from the previous years, the Committee find that the Ministry have not been able to resolve the problem of completing formalities/procedures/getting approvals in time on account of which funds remain unutilized for a substantial time period. The Committee would, therefore,

recommend that Ministry give serious thought to the issue of Schemes/Programmes remaining unimplemented before making projections for the year ahead. They would recommend the Ministry to plan in advance for launching of Schemes and ensure that all procedures/systems are put in place before making budgetary provisions. The Committee would like to be apprised of the details of measures taken in this regard. The Committee also recommend that grants given to States viz North East Region, Himachal Pradesh, Jammu & Kashmir and Uttranchal under Minor Irrigation schemes be utilised promptly and necessary steps be taken by the Ministry to persuade the State Governments for full utilisation of Grants/Central assistance to such States specially Jammu & Kashmir.

Data Bank and Information System

1.34 The Committee have been informed that the average annual water availability in the country as per the assessment carried out by Central Water Commission(CWC) in 1993, is 1,869 billion cubic meters (BCM), out of which utilizable water with conventional approach is 1,121 BCM, consisting of 690 BCM of surface water out of which 450 BCM is being utilized for various purposes, as per the estimation of CWC in 2009. Similarly Central Ground Water Board (CGWB) has also estimated in 2009 that out of the 431 BCM of replenishable ground water resources, only about 243 BCM of ground water is being utilized. The Committee further note that administrative approval and expenditure sanction for reassessment of water availability in 19 basins, has been obtained, and CWC is currently in the process of procuring the required hardware and software for the study. The Committee are surprised to find that the current data on availability of water resources is more than 22 years old. They

are of the considered view that formulation of policy for development and management of water resources, on the basis of such outdated data, can not be reliable and is bound to be faulty. The Committee desire that assessment of water resources should be undertaken periodically preferably every five years. They also desire that the current exercise for assessment of water resources should be completed at the earliest and they should be apprised of the action taken in this regard. The Committee further note that the Ministry is preparing fresh EFC proposal for creation of National Water Informatics Centre (NWIC) which will process, organise and provide up-to-date data and information on water resources and allied themes in public domain and develop value added products and services for integrated water resources management. The Committee, therefore, recommend the Ministry to initiate concrete steps at the earliest for setting up NWIC which will serve as pivotal centre for management of water resource and apprise them of the action taken in this regard.

1.35 The Committee observe that the scheme of River Basin Management was formulated during the year 2013-14 by merging the earlier Schemes of River Basin Organisation and Investigation of Water Resources Development. Besides, restructuring of CWC and Brahmaputra Board are also under the purview of this Scheme. The Committee find that the budget allocations for this scheme were reduced by more than Rs. 100 crore at the revised stage due to lower allocation of funds by the Ministry of Finance as some aspects of projects such as works pertaining to the Survey and Investigation of some of the projects of Inter-linking of Rivers, major and medium irrigation projects, flood management and anti-erosion, could not take off due to local hindrances, forest/environment related issues and

other administrative reasons. The Committee are disappointed over the fact that a substantial amount of fund is remaining unutilised year after year due to faulty approach of the Ministry. They are of the firm opinion that a well co-ordinated approach and proper planning on part of the Ministry can ensure better utilisation of funds. The Committee would, therefore, recommend the Ministry to identify the area specific problems and resolve them in consultation with respective Governments so that the proposed projects could be speedily executed and finished.

The Committee are further unhappy to find that re-structuring of CWC has not yet been undertaken due to disagreement on some observations of the Ministry of Finance. They observe that after deliberations with the Ministry of Finance, the revised proposal for re-structuring would be submitted. The Committee express displeasure with the tardy pace of execution of the re-structuring exercise, which is crucial for enabling CWC to discharge its functions for development and management of water resource in holistic manner.

Inter-State Water Disputes Tribunals

1.36 The Committee note that under the Inter-State Water Disputes (ISRWD) Act, 1956, as many as 5 Inter-State Water Disputes Tribunals, viz. Cavery Water Disputes Tribunal (CWDT), Krishna Water Disputes Tribunal (KWDT), Vansadhara Water Disputes Tribunal (VWDT), Mahadayi/Mandavi Water Disputes Tribunal (MWDT) and Ravi & Beas Waters Tribunal (R&BWT) have been constituted by the Government and a cumulative expenditure of Rs. 5,545.92 crore has been incurred on them till date. The Committee further observe that the disputes referred to the above have not been resolved till date despite incurring such a huge expenditure. The Committee are of the

view that there is a need to work out a solution in order to restrain a huge amount of expenditure on so many inter-State Water Disputes Tribunals. The Committee are also convinced that the issue of inter-State water dispute in the country will not be resolved due to the existence of multifarious tribunal/authorities. Rather proper solution has eluded the above stated inter-State disputes, till date, although a total expenditure of Rs. 5,545.92 crore has been incurred so far. The Committee, therefore recommend that instead of multifarious inter-State Water Disputes Tribunal, a single, centralised and effective inter-State Water Dispute Tribunal may be created for resolving the inter-State water disputes in the country and concrete steps may be initiated by the Government in this direction at the earliest. The Committee desire to be apprised of action taken in this regard by the Government at the earliest.

CHAPTER II

MEDIUM IRRIGATION

Hydrological Observation (H.O) Stations

2.1 Central Water Commission is operating a network of hydro-meteorological observation stations throughout the country on all major river basins to observe (i) Water Level (Gauge), (ii) Discharge, (iii) Water Quality, (iv) Silt besides (v) Selected Meteorological parameters including snow observations at key stations. The hydrological data collected from sites is scrutinized, validated and published in the form of Water year Book, Water Quality Year Book and Sediment Year Book etc. The data so collected is utilized for planning and development of water resources projects, climate change studies, water availability studies, flood/ inflow forecasting, examination of international & inter-State issues, river morphological studies, inland waterway development, Reservoir Siltation studies and research related activities etc.

2.2 The data on budgetary allocations and actual expenditure under this scheme for the last five years is given below:

Table-6: Budget Allocations and Actual Expenditure on Hydrological Observation Stations

(Rs.in Crore)

Year	BE	RE	Actual Expenditure
2009-10	20.38	20.98	18.84
2010-11	19.04	18.68	18.47
2011-12	20.63	21.07	19.75
2012-13	33.64	23.02	24.99
2013-14	88.00	28.38	29.15
2014-15	124.42	41.292	38.66 (up to Feb'2015)

2.3 Asked to state the World Meteorological Organisation (WMO) guidelines on HO sites, the Ministry, in their written submission, stated as below:

"As per the WMO guidelines, normally one Hydrological Observation Station should be there on any river covering a catchment area of 1875 sq.km. However, the criteria changes with terrain, other hydro-meteorological conditions or as per requirement. Similarly, there are different criteria for silt and water quality monitoring. In addition to above, the hydrological stations network proposed during XII Plan period under DWRIS scheme has been designed based on following.

(a) To cover all the un-gauged tributaries/ sub-tributaries of significance throughout the country,

(b) To cover most of rivers at international boundaries,

(c) To cover most of inter-State rivers,

(d) To meet the requirement of flood forecasting at new flood forecasting stations,

(e) New hydrological observation stations are proposed in Andaman & Nicobar Island,

(f) New snow gauge observatories have been proposed for snow melt runoff forecasting during lean season for which model is being developed by NRSC,

(g) To have spatially more dense data for climate change studies.

As per World Meteorological Organization (WMO) recommendations, maximum recommended areas in sq.km. per station is as under.

Table-7: Maximum recommended area in square Km. per station as per WMO

Physiography Hydrological variable	Polar/Arid	Coastal	Hilly	Interior Plains	Mountain
Precipitation (non-recording gauge)	10,000	900	575	575	250
Precipitation (recording gauge)	1,00,000	9,000	5,750	5,750	2,500
Evaporation	1,00,000	50,000	50,000	50,000	50,000
Discharge	20,000	2,750	1,875	1,875	1,000
Water quality	2,00,000	55,000	47,500	37,500	20,000

2.4 When queried regarding the total number of existing HO sites in the country, the Ministry furnished following written information which is re-produced below:

S. No.	Name of States	HO stations Total
1	Andhra Pradesh	50
2	Arunachal Pradesh	24
3	Assam	73
4	Bihar	57
5	Chattisgarh	32
6	Dadra& Nagar Haveli	4
7	Delhi	3
8	Goa	2
9	Gujarat	42
10	Haryana	5

11	Himachal Pradesh	14
12	Jammu & Kashmir	15
13	Jharkhand	29
14	Karnataka	45
15	Kerala	21
16	Madhya Pradesh	50
17	Maharashtra	69
18	Manipur	1
19	Meghalaya	7
20	Mizoram	7
21	Odisha	53
22	Pondicherry	3
23	Rajasthan	24
24	Sikkim	15
25	Tamil-Nadu	35
26	Tripura	13
27	Uttar Pradesh	93
28	Uttarakhand	34
29	West Bengal	58
	Met Stations	55
	Grand Total	**933**

2.5 When queried as to what steps have been taken for compliance on WMO guidelines for HO sites , the Ministry, in their written reply, submitted as under:

> "Strengthening of hydrological observation network was discussed in detail by the Working Group on "Water Database Development and Management" constituted by Planning Commission under the chairmanship of Sh. A. Vaidyanathan. The Working Group observed that 'considering WMO guidelines the existing Hydrological

Observation (H.O.) stations are far below the minimum requirement. In total, 1917 additional H.O. stations may be opened in order to meet the minimum requirement of H.O. stations for achieving various goals such as assessment of basin-wise water availability, study of climate change, better flood forecasting, flood mitigation, reservoir inflow forecasting, water quality and sediment assessment, morphological studies, planning and design of water resources project, assessment of navigational potential for inland water ways etc.' In view of above, CWC proposes to open 800 new H.O. sites covering all rivers of significance in India during XII Five Year Plan and balance in next Plan periods. Accordingly, provision for opening of 800 new hydrological stations has been made in the EFC memo of DWRIS scheme during XII Plan period (2012-17) as per details below.

Existing no. of sites	:	933
Total no. of sites after expansion	:	1733
New sites to be set up	:	800
Existing Sites to be upgraded by inclusion of additional hydrological parameters for which data will be collected	:	100

During FY:2014-15, a total of 236 new HO stations will be opened and 100 existing sites will be upgraded by inclusion of additional hydrological parameters, viz., sediment, water quality, discharge etc for which data will be collected".

2.6 During the examination of Demands for Grants (2013-14), the Committee, in their 17th Report, recommended that "the process of strengthening the network of HO sites should be completed within the scheduled timeframe". The Government in their action taken reply informed that "the Working Group on 'Water Data Base Development and Management' constituted by Planning Commission for XII Plan has assessed that present Hydrological observation network is insufficient and recommended for strengthening the Hydrological Observation Network for

achieving above various goals. Accordingly, the proposal for additional sites as well as up-gradation of existing sites has been included in the proposals of DWRIS of EFC for consideration of the EFC. Appraisal process is now completed".

2.7 When asked about any time line fixed for expansion and up-gradation of existing HO sites and measures taken to complete the process in a time bound manner, the Ministry stated the following in their written submission:

> "Under the sub-component of 'Hydrological Observations including Snow Hydrology, Water Quality and Monitoring of Glacial Lakes' of XII Plan scheme of Development of Water Resources Information system, the proposal relates to continuing of works from XI Plan, opening of new hydrological observation stations, up-gradation of few existing stations, carrying out water quality analysis of samples from the new stations, glacial lake monitoring, snow-melt runoff forecasting etc. The opening of new sites and up-gradation of existing sites have been phased and will be completed by end of Financial Year 2016-2017. The station-wise summary of the works proposed to be taken up during the XII Plan period is given below

Table-8: Year- wise Plan for State-wise Up-gradation of 100 HO stations

S. No.	Name of States	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Andhra Pradesh	0	0	7	0	0	7
2	Arunachal Pradesh	0	0	3	0	0	3
3	Assam	0	0	1	0	0	1
4	Bihar	0	0	10	0	0	10
5	Chhattisgarh	0	0	2	0	0	2
6	Dadar & Nagar Haveli	0	0	1	0	0	1
7	Delhi	0	0	1	0	0	1
8	Gujarat	0	0	2	0	0	2
9	Haryana	0	0	0	0	0	0
10	Himachal Pradesh	0	0	5	0	0	5
11	Jammu & Kashmir	0	0	1	0	0	1
12	Jharkhand	0	0	2	0	0	2

13	Karnataka	0	0	2	0	0	2
14	Kerala	0	0	0	0	0	0
15	Lakshadweep	0	0	0	0	0	0
16	Madhya Pradesh	0	0	10	0	0	10
17	Maharashtra	0	0	15	0	0	15
18	Meghalaya	0	0	0	0	0	0
19	Mizoram	0	0	1	0	0	1
20	Nagaland	0	0	0	0	0	0
21	Odisha	0	0	5	0	0	5
22	Rajasthan	0	0	1	0	0	1
23	Sikkim	0	0	2	0	0	2
24	Tamil Nadu	0	0	1	0	0	1
25	Telengana	0	0	2	0	0	2
26	Tripura	0	0	3	0	0	3
27	Uttar Pradesh	0	0	15	0	0	15
28	Uttarakhand	0	0	6	0	0	6
29	West Bengal	0	0	2	0	0	2
	Total	**0**	**0**	**100**	**0**	**0**	**100**

Table-9: Year-wise Plan for opening of 800 new HO sites (State-wise)

S. No.	Name of States	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Andhra Pradesh	0	0	6	10	8	24
2	Arunachal Pradesh	0	0	8	13	14	35
3	Assam	5	0	16	19	9	49
4	Bihar	0	0	17	18	28	63
5	Chhattisgarh	0	0	5	4	4	13
6	Delhi	0	0	0	0	1	1
7	Gujarat	0	0	3	1	1	5
8	Haryana	0	0	2	3	3	8
9	Himachal Pradesh	0	0	7	12	7	26
10	Jammu & Kashmir	0	0	11	11	11	33
11	Jharkhand	0	0	3	2	2	7
12	Karnataka	0	0	6	13	10	29
13	Kerala	0	0	3	8	7	18
14	Lakshadweep	0	0	0	0	1	1
15	Madhya Pradesh	0	0	34	37	23	94
16	Maharashtra	0	0	10	19	23	52
17	Meghalaya	0	0	5	7	10	22
18	Mizoram	0	0	11	9	3	23
19	Nagaland	0	0	0	0	1	1

20	Odisha	0	0	12	14	16	42
21	Rajasthan	0	0	5	8	8	21
22	Sikkim	0	0	8	8	8	24
23	Tamil Nadu	0	0	7	11	6	24
24	Telengana	0	0	4	5	2	11
25	Tripura	0	0	0	1	1	2
26	Uttar Pradesh	0	0	25	44	23	92
27	Uttarakhand	0	0	16	16	15	47
28	West Bengal	0	0	12	14	7	33
	Total	**5**	**0**	**236**	**307**	**252**	**800**

National Bureau of Water Use Efficiency

2.8 Increasing water use efficiency is envisaged in agricultural, domestic and industrial sector as per Goal IV of National Water Mission (NWM). It may be mentioned that agriculture sector accounts for more than 80% of water usage, hence increasing water use efficiency in irrigation/agriculture is important for conservation of water.

2.9 Ministry of Water Resources, River Development and Ganga Rejuvenation proposed to set up a National Bureau of Water Use Efficiency (NBWUE) for the purpose of improving water use efficiency across various Sectors and to meet the target of NWM Goal No. IV, which envisages to increase water efficiency by 20%. National Bureau of Water Use Efficiency (NBWUE) shall be an authority under Environment (Protection) Act 1986 for the purpose of promotion, regulation and control of efficient use of water irrigation, municipal and / or industrial uses. A proposal for setting up of NBWUE is under process in the Ministry.

2.10 During the examination of Demands for Grants 2013-14, the Committee were informed that "National Bureau of Water use efficiency (NBWUE) will be operationalised in 2013-14, subject to approval of EFC. Further in their Action Taken Reply, the Ministry furnished that efforts are being

made to secure the approval of EFC of National Water Mission (NWM) and to set up NBWUE under Section 3(3) of Environment (Protection) Act 1986 during the financial year 2013-14".

2.11 The National Water Policy (2012) summarises the importance of water resource as under:

> "A scarce natural resource, water is fundamental to life, livelihood, food security and sustainable development. India has more than 18% of the world's population, but has only 4% of world's renewable water resources and 2.4% of world's land area".

2.12 In reply to a query on current level of water use efficiency in agricultural, domestic and industrial sectors in our country vis-a-vis other countries in the World, the Ministry, in their written reply, submitted as below:

> "Central Water Commission (CWC) has identified water use efficiency of irrigation projects for surface water as 30%, ground water: 55%, drinking water (urban): 60%, drinking water (rural): 70% and industries: 80%. The international best practices for different uses of water are approximately - surface water: 60%, ground water: 75%, drinking water supply: 90% and industries: 95%".

2.13 When asked about the water use efficiency study of major/medium irrigation projects by CWC, the Ministry furnished the following information in their written submisiion:

> "Water use efficiency studies in 28 major/medium irrigation projects were sponsored by CWC in four States of Andhra Pradesh, Uttar Pradesh, Punjab and Haryana. The details of the findings are furnished below:

Table-10: Water Use Efficiency of Sample Major/Medium Irrigation Projects in four States

S. No.	Name of Project	Command Area (ha)	Irrigation Efficiency (%) (Overall Project)
(1)	(2)	(3)	(4)
1	Bhairavanithippa Project	4,856	58
2	Gajuladinne Project	10,300	26
3	Gandipalem Project	6,478	28
4	Godavari Delta System	410,108	45

5	Kurnool – Cuddapah Canal System	65,465	28
6	Kaddam Project	27,519	18
7	KoilSagar Project	11,700	62
8	Krishna Delta System	529,000	40
9	Nagarjuna Sagar Project	889,000	22
10	Narayanapuram Project	15,855	15
11	Nizamsagar Project	93,659	39
12	Srisailam Project	59,900	17
13	Rajolibanda Diversion Scheme	35,410	42
14	Somasila Project	54,650	18
15	Sri Ram Sagar Project	371,054	45
16	Tungabhadra High Level Canal	45,800	47
17	Tungabhadra Low Level Canal	61,163	32
18	Vamsadhara Project	82,087	53
19	Yeleru Project	27,240	14
20	Augmentation Canal Project	85,443	57
21	Dholabaha Dam Project	2,600	53
22	Ranjit Sagar Dam Project	300,000	33
23	Ahraura Dam Irrigation Project	14,964	49
24	Matatila Dam Project	179,880	54
25	Naugarh Dam Irrigation Project	64,221	50
26	Pili Dam Project	4,044	38
27	Walmiki Sarovar Project	6,271	38
28	East Baigul Reservoir Project	16,605	42
	Average		**38**

2.14 With regard to improvement of water use efficiency in different sectors, the National Water Policy (2012) states the following:

> "The project appraisal and environment impact assessment for water uses, particularly for industrial projects, should, inter-alia, include the analysis of the water footprints for the use.
>
> Recycle and reuse of water, including return flows, should be the general norm.

Project financing should be structured to incentivize efficient & economic use of water and facilitate early completion of ongoing projects.

Water saving in irrigation use is of paramount importance. Methods like aligning cropping pattern with natural resource endowments, micro irrigation (drip, sprinkler, etc.), automated irrigation operation, evaporation-transpiration reduction".

2.15 Replying to a further query as to whether the NBWUE has been set up, the Ministry, in their written submission, stated as under:

" It is proposed to set up a "National Bureau of Water Use Efficiency (NBWUE)" for promotion, regulation and control efficient use of water in irrigation, industrial and domestic sectors. The Expenditure Finance Committee (EFC) meeting held on 22.07.2013 has recommended setting up of NBWUE and outlay of Rs.50 crore has been earmarked for XII Plan. Draft Cabinet Note for establishment of NBWUE is under process".

Hydrological Observation (H.O) Stations

2.16 The Committee observe that at present there are 933 Hydrological Observation (HO) sites in the country which are used for various objectives such as assessment of water availability, silt, discharge, water quality etc. They further note that as per the World Meteorological Organisation (WMO) guidelines, there should be one HO station on a river covering a catchment area of 1875 square km. This criteria changes with terrain, other hydro-meteorological conditions. The Committee note that as per the Working Group on "Water Database Development and Management" constituted by the erstwhile Planning Commission, the existing HO stations are insufficient to enable collection of information for achieving various objectives such as assessment of basin- wise water availability, study of climate change, better flood forecasting, flood mitigation, reservoir inflow forecasting, water

quality and sediment assessment, morphological studies, planning and design of water resources project, assessment of navigational potential for inland water ways etc. Therefore, the Working Group has recommended for setting up at least 1917 additional HO sites proposed to be undertaken over the XII and XIII Plan period, with 800 new sites covering all rivers of significance during the XII Plan period. During the year 2014-15, a target for setting up 236 new HO sites and up-gradation of existing 100 HO sites have been set up to cover additional parameters. However as per the information furnished by the Ministry, only 5 new HO Sites were proposed to be set up in the year 2012-13, which indicates a very slow progress of work in the beginning. This fact is corroborated by the data on budgetary allocations and expenditure under this head which shows that allocations were reduced substantially at RE stage during the years 2013-14 and 2014-15. The Committee apprehend that with such a start, the targets set for up-gradation and expansion of HO sites may remain un-accomplished. They, therefore, recommend the Ministry to fast track the project and take every effort for completion of work within the scheduled timeframe. They also desire to be apprised of the number of new sites opened and up-graded till March, 2015 and the reasons for slow pace and lesser utilisation of budgetary allocations under this head so far.

National Bureau of Water Use Efficiency

2.17 The Committee note that water use efficiency in irrigation projects for surface water is 30%, for ground water is 55%, for drinking water supply in urban and rural areas is 60% and 70% respectively and for industries is 80%, which is low as compared to international

standards of 60% for surface water, 75% for ground water, 90% for drinking water supply and 95% for industries, as per the information provided by the Ministry. They further observe that water use efficiency study of 28 sample major/medium irrigation projects in four States of Andhra Pradesh, Uttar Pradesh, Punjab and Haryana has revealed average irrigation efficiency of merely 38%. They deplore the fact that judicious and efficient water use is still a distant dream, given such a low efficiency level in irrigation sector. The Committee believe that more attention needs to be given to irrigation sector and that there is a need to replace the outdated system of irrigation with newly designed/modern irrigation devices. Being endowed with only 4% of global water resources for supporting 18% of total world population residing in India, water saving should be an important objective in planning the use of this scarce natural resource. The renewable water resource should be so improved to increase its availability from 4% of global water resources at present. The Committee are also of considered opinion that while establishing the proposed National Bureau of Water Use Efficiency (NBWUE) is a right step in this direction, it is perturbing that despite EFC's recommendation for setting up NBWUE in 2013 with Rs. 50 crore allocated in XII Plan towards this, the organisation is yet to come up. The Committee feel that with this pace of work, the actual implementation on the ground will not take place even after decades and therefore the Committee strongly recommend to expedite early formation of National Bureau of Water Use Efficiency to enable adoption of measures to get specific standards in water conservation.

CHAPTER III

MINOR IRRIGATION

Ground Water Management and Regulation

3.1 This scheme has objectives such as National Aquifer Mapping, ground water exploration, ground water resource assessment, ground water regime monitoring , artificial recharge and rainwater harvesting studies, ground water management studies in identified thrust areas, geophysical studies, Hydro chemical studies, regulation of ground water development, remote sensing studies, ground water modeling, conjunctive use studies of surface and ground water, River Development (RD) studies and education/knowledge transfer etc. The Budgetary allocations and actual expenditure under this scheme for the last four years is as under:

Table-11: Budget allocations and actual expenditure for Ground Water Management and Regulations

(Rs. in crore/Net)

Year	BE	RE	Actuals
2011-12	120.00	132.00	131.75
2012-13	318.00	180.00	118.28
2013-14	275.00	140.00	80.40
2014-15	325.00	143.00	57.67
2015-16	163.00		

3.2 On being asked about the reasons for decrease in budget allocations under this head by Rs. 162.00 crore in the year 2015-16 vis-a-vis the previous year, the Ministry in their written submission stated as under:

> "CGWB had proposed BE of Rs. 631 crore for the year 2015-16 as per the EFC / CCEA provisions. However, allocation has been reduced to Rs. 163 crore , may be due to budgetary constraints at the level of Ministry of Water Resources, RD & GR. Request for increased allocation shall be made subsequently".

3.3 In reply to query regarding constant under-utilisation of funds under this head, since the year 2012-13 even after substantially reducing fund allocation at RE stage, the Ministry, in their written submission stated as under:

> "The approval of CCEA was received in September, 2013 and subsequently the outsourcing activities for data generation could not be taken up".

3.4 On being further asked about the details of activities/works to be taken up with the allocated fund of Rs. 163 crore, the Ministry stated as under:

> "The funds of Rs. 163 crore can be utilized for carrying out regular activities of the Board. Additional funds as demanded in BE 2015-16 would be required for implementing other activities as envisaged in the EFC / CCEA".

Ground Water Management and Regulation

3.5 The Committee note that the Scheme of Ground Water Management and Regulation has very important objectives for overall development, management and regulation of ground water in the country. However, the Committee also observe that actual expenditure under this head has constantly fallen short of allocated funds since the year 2012-13 on account of late approval of CCEA for outsourcing activities for data generation. Out of the total allocated funds (RE) of Rs. 143.00 crore in the year 2014-15, only Rs. 85.91 crore has been spent upto March, 2015. They further note that the Ministry has made a provision of

Rs. 163.00 crore only under this head during the current financial year of 2015-16, for which initial request for Rs. 631.00 crore was made. The Committee have been given to understand that the gap would be met through subsequent request for increased allocation. They have been also assured that budgetary allocation of Rs. 163.00 crore would be utilised fully towards meeting the expenditure for regular activities of the Board. Additional requirement of funds, to be demanded later on, would be utilised on implementation of proposed activities in the year 2015-16. Keeping in view the under- utilisation of funds for the last three years, the Committee desire that the enhancement of allocated funds be fully spent in the current year so that projects/activities will not remain un-implemented due to less time remaining in the current financial year or procedural bottlenecks.

The Committee also note, in this regard that village ponds are major sources of water which, however, are being encroached upon by local populace. The Committee desire that an action may be initiated to curb these encroachments by the Government. Noting further the important role played by water bodies for replenishing ground water resources in the country, the Committee desire to be apprised of the total outlays made and the Plan schemes executed, on-going and being planned by the Government for repair, renovation and restoration of water bodies in different States during the last five years, especially in the State of Jammu & Kashmir. The Committee further desire that unmetered supply of electricity to tube wells be stopped to put a check on electricity and waste of water and they desire the Ministry to initiate steps in this regard under intimation to the Committee.

CHAPTER IV

FLOOD CONTROL AND DRAINAGE

Flood Forecasting

4.1 There are 175 flood frecasting stations, of which 147 are level forecasting and 28 are inflow forecasting stations on major dams and barrages. It covers 9 major river systems in the country including 71 river sub-basins and 15 States viz., Andhra Pradesh, Assam, Bihar, Chattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Tripura, Uttarakhand, Uttar Pradesh and West Bengal and two Union Territories viz. Dadra & Nagar Haveli and National Capital Territory of Delhi.

4.2 During the flood season 2014 (May to October), 4772 flood forecasts (3884 level forecast and 888 inflow forecasts) were issued, out of which 4667 (97.80%) forecasts were found within accuracy limit of +/- 0.15 m for level forecast and +/- 20% for inflow forecast. During the flood season, the real time hourly data of over 250 stations (mostly of flood forecasting stations and few base stations) were collected, compiled, analyzed and used to generate flood reports of the regions. Hourly hydrological data is entered by all the divisions of CWC in newly launched web-based software e-SWIS from 2014 Monsoon to monitor the current status of the river. The e-SWIS flood forecast module has inbuilt programme for generation of e-mail/sms for flood alert which can be sent to various users using bulk sms for MTNL, Delhi. This is new development made by CWC during 2014.

4.3 During the flood season of 2014 (May to Oct), out of 147 level forecasting sites, unprecedented flood situation (where the, Highest Flood Level (HFL) attained during the flood season exceeded their respective previous HFL) was witnessed in two flood forecasting stations

namely Balrampur at River Rapti in Balrampur District and Elgin bridge at Ghagra in Barabanki District of Uttar Pradesh (UP) in the country.

4.4 High Flood situations were experienced at 11 forecasting stations where peak level had attained within 0.5m of previous HFL viz; River Baitarni at Anandpur in Keonjhar district of Odisha, River Brahmaputra at Dibrugarh in Dibrugarh district, Neamatighat in Jorhat District, River Buridehing at Chenimari (Khowang) and River Beki at Road Bridge in Barpeta District of Assam, River Ghaghra at Elgin Bridge in Barabanki district, Ayodhya in Faizabad District of Uttar Pradesh, Darauli and Gangpur Siswan in Siwan district of Bihar, River Rapti at Balrampur in Balrampur district of Uttar Pradesh, River Bagmati at Benibad in Muzzafarpur District of Bihar.

Jammu and Kashmir witnessed unprecedented flood situation during September 2014.

4.5 The Budget outlays on Flood Forecasting are given in the following table :

Table - 12: Budget outlays for Flood Forecasting

(Rs. in crore/gross)

Actuals 2013-14		BE 2014-15		RE 2014-15		BE 2015-16	
Plan	**Non-Plan**	**Plan**	**Non-Plan**	**Plan**	**Non-Plan**	**Plan**	**Non-Plan**
24.67	0.00	90.00	0.00	26.00	0.00	45.00	0.00

4.6 When asked to furnish reasons for drastic reduction in BE allocation by Rs. 64.00 crore, this year as compared to previous year, the Ministry, in their written reply, stated following:

> "During XII Plan, CWC had proposed new activities of modernisation of existing flood forecasting network and expansion of the network to cover more areas and presuming that the scheme will be approved in FY: 2014-15, the demands were placed under BE: 2014-15. As the scheme could not be approved as planned, the

expenditure could not be incurred on new activities due to which allocations were reduced at RE: 2014-15 stage. The allocation in FY: 2015-16 are based on the presumption that scheme will be approved timely in 2015-16".

4.7 When asked to furnish the action taken/proposed to be taken to avoid reduction of Budget allocation at RE stage during the year 2015-16, the Ministry furnished following written reply;

"The approval of the scheme will be expedited / pursued which is expected to keep the expenditure trend as planned".

4.8 The Committee wanted to know the details of the works/schemes which are being covered under the Flood Forecasting Scheme and year-wise achievements vis-a-vis targets under each of them. To this query, the Ministry furnished the reply which is reproduced below:

"Works covered under XIIth Plan Flood Forecasting scheme are as follow;

(a) Continuation of Flood Forecasting activities at 175 Stations with input data of 533 base stations.

(b) Establishment of automatic sensors and satellite telemetry at remaining 219 existing Stations (Base :151, Level : 56, Inflow: 12).

(c) Establishment of 310 new base stations, 100 new Flood Forecast Stations with automatic sensors and telemetry; 2 Earth Receiving Stations, 6 new Modelling Centres

(d) Conversion from PRBS mode to TDMA mode for 223 Stations + 2 ERS (due to outlived life of INSAT satellite)

(e) Development of inundation forecast model for about 3 mha flood prone area using available Digital Elevation Maps (DEM) from NRSC.

(f) Development/ procurement of appropriate software for mathematical models

(g) Preparation of new PMP atlas and updation of old Atlas (component spilled from XI Plan scheme Dam Safety)"

4.9 Year-wise achievements made under Flood forecasting in physical and financial aspects in the country since XIth Plan in a tabulated form is as below.

Table - 13: Year-wise achievements under Flood Forecasting

Year	Physical achievements	Expenditure incurred (Rs. in crore)
2007-08	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of 97%. Around 8223 were issued during the year. Mathematical modelling study were continued.	13.64
2008-09	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of 98%. Around 6691 were issued during the year. Mathematical modelling study were continued.	13.99
2009-10	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of 98%. Around 4010 were issued during the year. Mathematical modelling study were continued.	17.62
2010-11	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of 98%. Around 7519 were issued during the year. Mathematical modelling study were continued.	24.25
2011-12	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of +99%. Around 5991 were issued during the year. Mathematical modelling study were continued.	33.15
2012-13	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of 98%. Around 5031 were issued during the year. Mathematical modelling study were continued.	25.18

2013-14	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of 96%. Around 7060 were issued during the year. Mathematical modelling study were continued.	25.32
2014-15	Collection of real time data, its analysis and issue of flood forecasts at 175 flood forecasting stations with an accuracy of 97.8%. Around 5000 were issued during the year. Mathematical modelling study were continued.	29.68 (upto Feb 2015)

4.10 In response to a further query on total number of Flood Forecasting stations in the country (both new and upgraded) and expenditure incurred, the Ministry submitted following in their written reply;

> "Total number of flood forecasting stations existing as on March 2015 in the country is 175. No new flood forecasting station has been established during 12th Plan period. Expenditure incurred on O&M of these stations, providing flood forecasting services at these stations including installation of satellite telemetry at 205 stations during 11th Plan period was 103 crore. Expenditure incurred on O&M of these stations, providing flood forecasting services at these stations during FY:2012-13, 2013-14, 2014-15 was respectively 25.22, 25.45 and 29.68 crore (upto February 2015 end)".

4.11 During the examination of Demands for Grants (2014-15), the Committee were informed that since CWC is not maintaining Flood Forecasting network in Jammu & Kashmir, no hydrological forecast was issued by CWC to the Government of Jammu & Kashmir for 2014 flood in the State. The Committee were informed that the Ministry also proposed to undertake various works/activities on Flood Forecasting during XII Plan to make it more effective and scientific. The Committee

recommended for preparing an implementable, time bound, year wise action plan for achieving goals set for XII Plan and desired to be apprised of the measures taken in this regard.

Flood Forecasting

4.12 The Committee observe that at present there are 175 Flood Forecasting stations in the country, of which 147 stations are level forecasting stations and 28 are inflow forecasting stations. The Committee are happy to note that with the existing network of stations, the Central Water Commission (CWC) has been able to predict 97.8% of flood situations. However, while examining the Demands For Grants for the year 2014-15, the Committee found that as there were no Flood Forecasting stations on river Jhelum, CWC could not issue any flood warning in the State of Jammu and Kashmir which witnessed severe flood situation last year. The Committee are distressed to find that despite their earlier recommendation made in 1st Report on Demand For Grants (2014-15) of the MoWR, RD&GR to take up the modernisation and expansion of Flood Forecasting network in a time bound manner by preparing year-wise action plan, the Ministry has failed to make any headway. The main reason for this delay is stated to be non-approval of the Scheme so far. The Committee deplore such sorry state of affairs and disapprove of the lackadaisical approach of the Ministry. They are surprised to find that no concrete efforts have been made for expediting the approval process so that work on modernisation and creation of new Flood Forecasting stations could be started without any delay. They would therefore recommend the Ministry to make an earnest endeavour in this direction at the earliest and take a targeted approach for expansion and modernisation of Flood Forecasting network for

better preparedness and management of flood situation in different parts of the country. Noting further that irrigation is the lifeline of agriculture sector in Jammu & Kashmir and also the recent Flood havoc caused in the State, the Committee desire the Ministry to take urgent necessary action for taking up needful works to augment the carrying capacity of river Jhelum without further delay. They would also desire that the Flood Forecasting network in the State of Jammu & Kashmir be augmented through concrete steps by the Ministry, and the Committee be apprised accordingly.

CHAPTER V

OTHER TRANSPORT SERVICES

Farakka Barrage Project

5.1 Farakka Barrage Project, with headquarters at Farakka in West Bengal, was commissioned in the year 1975 for preservation and maintenance of Kolkata Port by improving the regime and navigability of the Bhagirath-Hooghly river system. The increased upland supply from Ganga at Farakka into Bhagirathi reduces salinity and ensures sweet water supply to Kolkata and surrounding areas. The rail-cum-road bridge built across the river Ganga at Garakka established direct road and rail communication link to the North-Eastern States with rest of the country. The Bhagirathi/Hooghly river system, the Feeder Canal and the Navigation Lock at Farakka form part of the Haldia-Allahabad Inland Waterway (National Waterway No.1)

Major programmes/schemes undertaken by Farakka Barrage Project are:

- Operation & Maintenance of Main Barrage
  - (a) 109 Gates on main Barrage
  - (b) 11 Gates on Head-Regulator
  - (c) 15 Gates of Jangipur Barrage
  - (d) Kalindri lock Gate/Regulator
  - (e) Protective measures of apron and river bed in u/s and d/s of Barrage
- Maintenance and protective measures of Feeder Canal (38.38 Km. in lenght), stuructures across Feeder Canal, Culverts, Inlets, Ferry Services, Inspection Road (both banks), Syphon, Buildings etc.

- Maintenance & protective measures of bank & bed of river Ganga in upstream of Farakka Barrage (upto 11.5 Km.) and in the d/s upto 6.9 Km. alongwith its allied structures like marginal bundh, inspection road, regulator, navigation locks, culverts, guide bund etc.
- Maintenance of Farakka Township, Khejuriaghat Township, Jangipur Barrage colony, colony at Kalindri lock including maintenance of all civil, mechanical and electrical structures.
- Operation & Maintenance of all equipments, vehicles and machineries.
- Since the year 2005, the Farakka Barrage Project has been entrusted with additional responsibility of undertaking anti-erosion works in its extended jurisdiction along the river Ganga from 40 Km. upstream of Barrage to 80 Km. downstream and on tributaries of river Ganga in North Bengal.

5.2 The Budget allocation and actual expenditure (Plan) under Farakka Barrage Project during the last three years is as under:

Table-14: Budget allocation and actual expenditure on Farakka Barrage Project

(Rs. in crore/Net)

Year	BE	RE	Actuals
2012-13	**75.00**	**100.00**	**73.56**
2013-14	**150.00**	**115.00**	**89.82**
2014-15	**150.00**	**85.00**	**65.72**
2015-16	**100.00**		

5.3 In reply to a query on reduction of budgetary allocation of funds in 2015-16 by Rs. 50 crore, the Ministry, in their written submission, explained as under:

> "Keeping in view the various constraints such as limited working area for replacement of gates & other hydro mechanical components, non-availability of sufficient strength of technically trained manpower and remote location of the project; as also overall reduction of allocations of the Ministry, realistic budget estimate of Rs. 100 crore for FY2015-16 has been proposed, which will be utilized".

5.4 When asked about the reasons for reducing allocations by Rs. 65.00 crore during RE 2014-15, the Ministry in their written reply furnished following:

> "For FY 2014-15 the BE of Rs 150 crore was made to Farakka Barrage Project. However, looking to various constraints such as limited working area for replacement of gates & other hydro mechanical components, non-availability of sufficient strength of technically trained manpower and remote location of the project; as also overall reduction of allocations of the Ministry, realistic RE for FY 2014-15 is Rs 85.00 crore, which is likely to be utilized fully".

5.5 Further replying to another query on reasons behind constant under-utilisation of funds for the last three years, the Ministry, in their written reply, submitted as under:

> "Approval of XII Plan EFC was received only during July 2013. In absence of approval of Plan Scheme, only essential works related to O&M of the project were carried out and no capital expenditure could be incurred till July 2013. This has resulted in less expenditure during the year 2012-13 and 2013-14".

5.6 On being asked about the updated status of completion of works pertaining to maintenance, repair and replacement of gates and other structures of Farakka Barrage, the Ministry in their written submission states as under:

"FBP is taking all necessary action to keep the gates and other hydro-mechanical components of Farakka Barrage in satisfactory operating and working condition. FBP has taken action for replacement of distressed gates in phased manner considering working limitations. Works of replacement of 6 old gates were taken up during 2012-13 and the work has been completed. Simultaneously, strengthening of 7 old gates was taken up during 2013-14 and the work has been completed except painting of gates. During 2013-14, replacements of 33 old gates were also taken up. Out of these 33 gates, 15 gates have been replaced by new gates during 2014-15 and another 5 gates have been fabricated and are ready for erection at site. Simultaneously, servicing and maintenance of other hydro mechanical components, hoists, central drive unit etc. has also been taken up during 2014-15 and is in advance stage of completion. In addition 2 sets of stop-log gates have also been procured during 2014-15 to meet out any exigency. Further action for administrative approval and expenditure sanction of competent authority for replacement of remaining gates in a phased manner is also being taken up. In addition painting hoist bridge and counter weights of Farakka barrage is also being taken up shortly. Administrative approval of competent authority for Construction of Walkway bridge on Farakka Barrage has been obtained and tendering process is ongoing. Administrative approval of competent authority for rehabilitation of Road Bridge over Farakka Barrage as per CRRI Report have been obtained and further formalities for tendering etc. is in progress. Lighting arrangement over Farakka Barrage has also since been improved".

5.7 Asked to furnish the details of measures undertaken to improve the condition of Farakka Barrage and its ancillaries since 2011, the Ministry in their written reply, submitted the following:

"Since the gates have outlived their economic life and serviceability, phase wise replacement of all the gates of Farakka Barrage Project and Head Regulator, remote control system, local control panels and other improvements in the various components of the operating system have been under taken on the recommendations of Technical Advisory Committee of Farakka Barrage Project.

Maintenance and protective measures of Feeder Canal (38.38 Km. in length), structures across Feeder Canal, Culverts, Inlets, Ferry Services, scour pocket filling at various locations in feeder canal, Inspection Road (both banks), Syphon, Buildings etc. has been carried out and is continuing.

Considering the ambitious plan of Inland Waterways Authority of India for substantial increase in the traffic on National Water Ways No. 1, the work of renovation and modernization of navigation lock at Farakka has been taken up. In this regard, the work of scoping studies for renovation and modernization of navigation lock at Farakka has been awarded to WAPCOS Ltd.

Maintenance & protective measures of bank & bed of river Ganga alongwith its allied structures like marginal bundh, afflux bundh, inspection road, regulator , navigation locks, culverts, guide bund etc. has been carried out and is continuing.

Maintenance of Farakka Township, Khejuriaghat Township, Jangipur Barrage colony, colony at Kalindri lock having 4000 dwelling units including maintenance of all civil, mechanical and electrical structures etc. has been carried out and is continuing.

Operation & Maintenance of all equipments, vehicles and machineries has been carried out and is continuing.

Year-wise expenditure is as under:

Year 2012-13: Rs 73.56 crore

Year 2013-14: Rs 89.82 crore

Year 2014-15: Rs 75.46 crore (up to February 2015)"

5.8 The action taken note on the observation of the audit contained in Chapter VII of Report no. 22 of 2013 of C & AG, as furnished by the Ministry in their written submission, states following with regard to repair and replacement of gates:

"Earlier, by the end of XII Five Year Plan, Farakka Barrage Project (FBP) had contemplated to replace all the 123 gates of Farakka Barrage and head Regulator. However, on account of delay in approval of plan scheme of FBP, the work order for

replacement of 33 gates could be placed on 25.06.2013 i.e. after a lapse of more than a year of commencement of XII Plan. Further due to various operational limitations viz. access to installation site through piers only, double line busy railway corridor, stretch of NH-34 over barrage and working in a limited space in flowing water conditions, targets as envisaged could not be achieved. Since, it is not possible to modify existing embedment, the erection process is taking more than anticipated time. As per experience gained from the ongoing replacement work, replacement of about 15 gates in a year is considered to be achievable figure with the existing constraints. Till date, 14 gates have been replaced and there is a target of replacement of another 9 gates during current Financial Year. In the remaining period of 2 year of XII Plan, it is expected that another 30 gates would be replaced. Thus by the end of XII Plan, it would be possible to replace about 55 gates. To avoid slippage of time, tendering process for next phase would be taken up by the time 50% work of replacement of 33 gates is completed. Revised work plan for replacement of gates would be placed in the next meeting of TAC for concurrence".

5.9 Replying to a further query on details of funds allocated and actual expenditure incurred on repairing the gates during the last three years, the Ministry, in their written reply, submitted as under:

"XII Plan EFC (2012-2017) of FBP has a provision of Rs 91.00 crore for repair/ replacement of Gates. Expenditure incurred on repair & replacement of Gates during the year 2012-13, 2013-14 and 2014-15 are as under:

Year 2012-13: Rs 3.7135 crore

Year 2013-14: Rs 4.3008 crore

Year 2014-15: Rs 9.3843 crore"

Farakka Barrage Project

5.10 The Committee note that Farakka Barrage Project was commissioned in the year 1975 for preservation and maintenance of Kolkata Port by improving the regime and

navigability of the Bhagirath-Hooghly river system. Major areas of operation under this project include operation and maintenance of main Barrage, maintenance and protection of feeder canal, maintenance and protection of bank and bed of river Ganga in upstream of Farakka Barrage, maintenance of Farakka township, Khejuriaghat township, Jangipur Barrage colony and colony at Kalindi lock, operation and maintenance of all equipments, vehicles and machineries, anti-erosion works in its extended jurisdiction along the river Ganga from 40km upstream of Barrage to 80km downstream and on tributaries of river Ganga in North Bengal. The Committee observe that allocations under this project have been reduced by Rs. 65.00 crore respectively at RE 2014-15 and by Rs. 50 crore, as compared to provisions kept in BE 2014-15 on account of such factors as limited working area for replacement of gates and other hydro-mechanical components, non availability of sufficient strength of technically trained manpower, remote location of the project and overall reduction in allocations of the Ministry. Further, the funds have remained constantly under-utilised for the last three years due to late approval of this Plan Scheme by EFC for XII Plan in July 2013. The Committee do not concur with the view of the Ministry in this regard. Besides, as informed to the Committee, despite being approved, substantial work in this Plan scheme was not done and funds remained under-utilised. This laxity on the part of the Ministry has been highlighted in Audit Reports of CAG.

The Committee further notice that work of replacement of all the 123 gates was delayed due to non-approval of Scheme in XII Plan and therefore, a goal of replacing 55 gates during the period of XII Plan has been fixed and the work has started in a phased manner. However, the Committee's examination has revealed that out of the total provision

of Rs. 91.00 crore for repair/replacement of gates kept for XII Plan, so far the Ministry has incurred an expenditure of Rs. 3.7135 crore in 2012-13, Rs. 4.3008 crore in 2013-14 and Rs. 9.3843 crore in 2014-15, which shows the sluggish manner in which this work has proceeded. The Committee deprecate such attitude of the Ministry in completion of work. They, therefore, desire that the work of replacement of gates should be undertaken in a time bound and target oriented manner and fix the responsibility for laxity in the matter. They also desire that immediate measures should be taken to recruit more technical manpower and be apprised accordingly.

CHAPTER VI

ECOLOGY AND ENVIRONMENT

Ganga Rejuvenation

6.1 Budgetary provisions for cleaning the river Ganga has been made under the Schemes of National River Conservation Plan and National Ganga River Basin Authority, National Ganga Plan and Ghat works for beautification of River Fronts, included in the sub head- Prevention and pollution of National Rivers. Budgetary allocations and expenditure incurred under each of these Schemes is as furnished below:

Table-15: Budget allocation and actual expenditure on Ganga Rejuvenation

(Rs. in crore/Gross)

Name of the Scheme	Actual 2013-14	BE 2014-15	RE 2014-15	BE 2015-16
1. National River Conservation Plan and National Ganga River Basin Authority	-	530.00	271.00	546.00
2. National Ganga Plan	-	1500.00	1500.00	2100.00
3. Ghat works for beautification of river fronts	-	100.00	100.00	100.00

National River Conservation Plan (NRCP) and National Ganga River Basin Authority(NGRBA):

6.2 **National River Conservation Plan (NRCP)** - This new scheme has been transferred from Ministry of Enviornment, Forests & Climate Change (MoEF&CC) to Ministry of Water Resources, River Development & Ganga Rejuvenation MoWR, RD&GR during the financial year 2014-15. Under the revised Allocation of Business Rules, the work related to Ganga and its tributaries has been transferred to MoWR.

6.3 **National Ganga River basin Authority (NGRBA)** – The work related to National Ganga River Basin Authority including the Mission Directorate, National Mission for Clean Ganga and other related work has been transferred from MoEF &CC to MoWR, RD & GR during financial year 2014-15. The work includes conservation, development, management and abatement of pollution in river Ganga and its tributaries.

National Ganga Plan:

6.4 This is a new scheme which has been included in the budget of Ministry of Water Resources, River Development & Ganga Rejuvenation during the Financial Year 2014-15. The expenditure is to be met from National Clean Energy Fund (NCEF).

Ghat works & Beautification of River Front:

6.5 This is a new scheme which has been included in the budget of Ministry of Water Resources during the Financial Year 2014-15. Asked to furnish the details of budgetary allocations and expenditure incurred on works related to Ganga clean-up and rejuvenation during the last five years, the Ministry, furnished the information as per **Annexure-I.**

6.6 Responding to another query on physical achievement of work, during the last five years, the Ministry in their post evidence submission, stated as below:

"During the years 2010-11 to year 2013-14, in addition to already ongoing 26 projects, 40 projects were sanctioned related to Ganga cleanup & rejuvenation under NGRBA. During this period, under NGRBA, 16 projects, including approved prior to 2010-11, were physically completed. During this period 110.50 mld STP capacity was created".

6.7 When queried about the main targets fixed for cleaning up river Ganga and its rejuvenation, the Ministry, in their written reply stated as under:

"The mission '*Namami Gange*' would enable integration of different programs on Ganga Rejuvenation and the ones impacting Ganga and help in developing a comprehensive action plan, cutting across various stakeholders, sectors, ministries etc., for Ganga Rejuvenation. The mission will facilitate expeditious implementation of the interventions needed for river Ganga rejuvenation and help accelerate the process of river water quality improvement, conservation of bio diversity & aquatic life, health & livelihood improvements etc. apart from providing improved sanitation facilities, hygienic conditions and improved citizen-river interaction & connect. The programme will target sanitation of all anthropogenic activities, waste management of all industrial units, reduction in water pollution level, creation of online monitoring systems etc".

6.8 Asked further to provide details of works/activities/programmes to be undertaken under National Ganga Plan (Namami Gange) along with allocation of funds provided for each of them, the Ministry, furnished the details of the activities proposed to be undertaken under this mission as per **Annexure II**. The Ministry, however, stated that the allocation for the components is not indicated as the scheme is yet to be approved by the Cabinet.

6.9 Further elaborating on the measures contemplated towards cleaning Ganga river, the Secretary, MoWR, RD & GR informed the Committee, during the evidence as follows:

"There are 66 districts on the banks of the main stem, 118 towns, and 1649 – or maybe the figure has been revised to 1,657 – gram panchayats. These are what we

are looking at – districts, towns and gram panchayats. This is the picture here. Now we want all the 118 towns to be taken up on priority for cleaning up of Ganga, and the 1,649 gram panchayats. We have proposed that the Ministry of Drinking Water and Sanitation will take up these on priority so that the municipal waste from the villages also do not come into the river for which we are making provision and due provision has been made in the EFC though it has still not got Cabinet approval... For industrial pollution, what we have in mind is installation of ETPs. The Ministry of Environment and Forests, with the Central Pollution Control Board, have issued notices to the industries. In some cases, the electricity has also been disconnected and they are doing it in a time-bound manner. I have been told that they should be able to – except for maybe pulp and paper – hopefully in the next one year achieve substantial results. They have also been asked to ensure that there is zero liquid discharge and whatever is coming out as effluent is treated and those which are not harmful are put to use... There are several other interventions that we are planning to make. There are 144 drains which are discharging dirty water into the river. We are also contemplating of making interception, diversion and treatment".

6.10 When queried about the major features of Ganga River Basin Management Plan, being prepared by IIT consortium, the Ministry informed following in their written submission:

"The 1st Ganga River Basin Management Plan is expected to be finalized based on the review of the draft submitted by concerned Ministries and Standing Committee constituted for the purpose".

6.11 In reply to a query on total amount of major pollutants flowing , total existing capacity of sewage treatment plants etc., the Ministry stated following in their written submission:

"In respect of sewerage, the critical most pollutant, the total sewage generation from 5 basin States on Ganga main stem is around 7300 mld while the STP capacity generated is 2126 mld apart from 1188 mld capacity under construction / approval phase. The STP capacity gap is of the order of around 4000 mld in the 5 basin States along Ganga.

As per IIT report, the total sewage generation in Ganga basin (11 states) is 12051 mld and the corresponding gap in treatment capacity is 6334 mld".

6.12 The Secretary, MOWR, RD&GR further explained the problem and further course of action being adopted in this regard as follows:

> "75 percent of the total pollution flowing into Ganga, is generated from the municipal waste and 25% of the pollution emanates from the industries. For municiapl waste, we have the plan for its interception, diversion and treatment. We are trying to bring a new feature in this that till now, first sewage network would be completed, then interceptors would be installed, then truck licence would be made, then Sewage Treatment Plant (STP) would be set up. A lot of time was required in all this. We want to change the sequence to make the total Plan integrated, but our focus would be mainly on the banks of Ganga so that, polluted water does not flow into Ganga. For this we want to change the sequence of work in a way that we take interception, diversion and treatment first so that there is less pollution of Ganga".

6.13 Asked to state the quantifiable goals set, if any, for reduction of all kinds of pollutants, the Ministry in their written submission, stated as under:

> "Various initiatives on all kinds of pollution including sewerage, industrial pollution, cremation, pious refuse, solid waste, dhobi ghats, riverfront development etc are being undertaken. However it has been difficult to set up quantifiable goals in absence of a scientific assessment of the total pollution loads. In respect of sewerage discharge to river Ganga, sewage treatment capacity is expected to be created to fill the treatment capacity gap of around 2500 mld (rough estimate) on the river Ganga main stem by 2018-19".

6.14 When queried about the proposed expenditure to be incurred on cleaning Ganga, the Secretary, MoWR, RD&GR, informed the Committee following during the course of his evidence:

> "Sir, we have taken approval for a detailed EFC note with regard to Ganga clean-up and we are taking it to the cabinet. Our contemplated volume, which we are thinking, is that our proposal for expenditure in next four-five years, which is not approved, is that we will invest around Rs. 20,000 crore in this".

6.15 Further, in response to a query on the assistance provided by the Central Government to States for abatement of pollution of the river Ganga, the Ministry, in their written submission, stated as under:

> "Central Government, through NGRBA is undertaking various infrastructure schemes on Sewerage, Sanitation, STPs, Municipal Solid Waste management, River Front development, Industrial pollution abatement, by granting financial support, capacity building activities, institutional development etc, is supporting the Ganga Basin States in creating necessary infrastructure for abatement of pollution of rivers".

6.16 When queried on the adequacy of financial assistance by Central Government in this regard, the Ministry in their written reply, stated as under:

> "The consortium of IITs in its report has indicated requirement of nearly Rs. 74,000 crore for development of sewerage infrastructure and Rs. 17,400 crore towards 5 years O&M in class I & II towns of Ganga Basin".

6.17 On being asked about the measures taken for increasing the sewage treatment facilities along the bank of river Ganga and provision made for this during the current financial year, the Secretary, MOWR, RD&GR, stated before the Committee, as below:

> "Yes, we will do that. We are taking it to the Cabinet. It has not yet got Cabinet approval. That is why I have not said that we have decided it. We are not in a position to commit because it may get altered...the Cabinet approval is the first step. We have cleared the step before the first step or what can be called the 'minus one' step, which is the EFC approval".

6.18 Further specifying the course of action to be taken for cleaning Ganga, the Secretary, informed:

> "What we are taking to the Cabinet is not something which is confined to next year. What we are taking to the Cabinet is something which we foresee till 2020. That is the projection of how we are going to execute the *Namami Gange* programme. Our time lines are running into 2020 with the sequencing of expenditure also given year-wise".

6.19 When asked about the monitoring mechanism devised to oversee the implementation of works/schemes/activities for cleaning Ganga, the Ministry, in their written reply, informed following:

"The monitoring mechanism is proposed to be adopted:

- To provide guidance and monitor the progress of this mission of national importance, and in order to achieve the desired outcomes expeditiously, in keeping with the federal structure, a three tier mechanism will be put in place, comprising of a) High Level Task Force (HLTF) chaired by Cabinet Secretary assisted by NMCG at national level, b) State level committee chaired by Chief Secretary assisted by SPMG at state level and c) District level committee chaired by the District Magistrate.
- The programme envisages an elaborate MIS and monitoring mechanism as a part of the WB project, which can be expanded to include other activities. Further, IT enabled web based monitoring mechanism will be developed for uploading information / data by various participating institutions and other agencies and will be accessible directly through a clear cut dash board provision for senior officials.
- The activities undertaken by the NMCG are audited by an appointed internal auditor, the internal audit team and the CAG of India under powers vested under Section 21 of the CAG Act under which a mandatory audit by CAG is undertaken every year.
- NMCG will monitor the projects on concurrent basis through its core team, project management consultants, IITs / Engineering Colleges / Universities etc. and third party inspections. The framework also provides for community monitoring besides social audits.

In addition, HLTF chaired by Cabinet Secretary will also monitor the overall programme. The programme status is also considered in the meetings of NGRBA".

6.20 The Committee note that the work of cleaning river Ganga has been proposed to be implemented through the Schemes of National River Conservation Plan (NRCP) and National Ganga River Basin Authority (NGRBA), National Ganga Plan and Ghat works and beautification of river front, for which budgetary provisions of Rs. 530.00 crore, Rs. 1500.00 crore and Rs. 100.00 crore were made in the year 2014-15. However the Schemes remained dormant as no expenditure could be incurred for want of approvals. This undoubtedly reflects the casual manner with which the work of cleaning Ganga River has been carried out so far. While examining the budgetary provisions for the above schemes during the current financial year, 2015-16, the Committee notice that allocations have been increased to Rs. 546.00 crore in case of NRCP and NGRBA and Rs. 2100.00 crore in case of National Ganga Plan. The Committee are, however, astonished that although the details of various components of the Scheme have been prepared, no separate allocations have been made as the Schemes are still in approval stage. During the evidence of the Ministry, the Committee were convinced that Schemes are expected to get Cabinet approvals and will be implemented in the current financial year. However the Committee feel that the Government is yet to take the first step towards the enormous task of cleaning and rejuvenating river Ganga. They hope that the Government will work in a more proactive manner to get the approvals expeditiously and will work with the determination and renewed vigour with which the work of Ganga cleaning and rejuvenation was started last year.

6.21 The Committee further observe that as compared to budgetary provision there has been less expenditure under the externally aided projects under Clean Ganga mission during the last five years. They are further perturbed to notice that inspite of spending

hundreds of crores every year, very little has been achieved in terms of abatement of pollution of the river. As informed by the Secretary, at present 75% of the pollution is generated from municipal waste and 25% from the industrial waste. While the total sewage generation is 7,300 million litres per day (mld), along the 5 basin States on the Ganga main stem, the capacity of existing sewage treatment plants (STPs) for treating this sewage is only 2,126 mld and further capacity of 1,188 mld is under construction/approval stage. By 2018-19, around 2,500 mld of treatment capacity is expected to be added on the main stem of river Ganga. This indicates that there will be a huge amount of untreated water, estimated to be 6,334 mld for 11 Ganga basin States in the IIT report, which unless properly disposed, will nullify the efforts for cleaning the river in the intervening period. The Committee, therefore, believe that the Government need to take concerted action for reduction, diversion and treatment of all kind of sewage. They feel that a comprehensive time-bound and target-oriented plan of action need to be framed in co-ordination with other related Ministries, viz. Drinking Water and Sanitation and Environment, Forests and Climate Change. The Committee desire to be apprised of the details of the action plan so prepared along with the targets fixed for implementation.

6.22 With regard to the total expenditure proposed to be incurred, the Committee were informed that the Government proposes to invest around Rs. 20,000 crore for cleaning river Ganga over a time horizon of 5 years, spanning upto the year 2020. However, the consortium of IITs which has been entrusted to prepare Ganga River basin management Plan has indicated the requirement of nearly Rs. 74,000 crore for development of sewage infrastructure and Rs. 17,400 crore for its operation and maintenance in the next five years.

Given the massive scale of operation required for cleaning and rejuvenation of Ganga, the Committee hope that availability of funds will not be a limiting factor and adequate funds will be released for completion of this programme by 2020 as envisaged by the Government.

NEW DELHI
22 April, 2015
02 Vaisakha, 1937 (Saka)

HUKUM SINGH,
Chairperson,
Standing Committee on Water Resources

PART-II

(A) MINUTES

MINUTES - I

MINUTES OF THE NINTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2015-2016) HELD ON FRIDAY, 27 MARCH, 2015

The Committee sat from 1100 hours to 1300 hours in Committee Room 'D', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri Hukum Singh - Chairperson

LOK SABHA

2. Shri Devusinh Chauhan
3. Shri Tareeq H. Karra
4. Shri Vinod Kumar B.
5. Shri Murali Mohan Maganti
6. Shri Rodmal Nagar
7. Shri Subhash Patel
8 Smt. Aparupa Poddar
9. Shri Ram Prasad Sarmah
10. Smt. Sathyabama V.
11. Shri Lallu Singh

RAJYA SABHA

12. Shri Balwinder Singh Bhunder
13. Smt. Naznin Faruque
14. Prof. Mrinal Miri

15. Shri A.V. Swamy
16. Shri Lal Sinh Vadodia

SECRETARIAT

5.	Shri A.K. Singh	-	Joint Secretary
6.	Shri S. Chatterjee	-	Director
7.	Smt. Rita Jailkhani	-	Additional Director

REPRESENTATIVES OF THE MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

1. Shri Anuj Kumar Bishnoi, Secretary
2. Dr. Amarjit Singh, Additional Secretary(WR, RD &GR)
3. Shri Sunil Kumar Kohli, JS &FA (WR, RD &GR)
4. Dr. Amita Prasad, JS (GW & Adm.)
5. Dr. B. Rajender, JS(PP)
6. Shri Servesh Kumar, A.D.G. (WR, RD &GR)
7. Shri Kushvinder Vohra, Commissioner (WR, RD &GR)
8. Shri N.K. Mathur, Commissioner (WR, RD &GR)
9. Shri Pradeep Kumar, Commissioner (Parl)
10. Shri T. S. Mehra, Sr. Joint Commissioner (Ganga)
11. K.M.M. Alimalmigothi, Econ. Advisor (WR, RD &GR)
12. Shri R.K. Gupta, Director (WR, RD &GR)
13. Shri Manish Tripathi, Director (WR, RD &GR)
14. Shri Arvind Chaudhury, Director (WR, RD &GR)
15. Shri Ravindra Singh, Director (WR, RD &GR)
16. Shri Puskal Upadhyay, Director (F) & Additional Mission Director
17. Shri M. Satya Narayana, Advisor (C&M/NWM)

Central Water Commission

18. Shri A. B. Pandya, Chairman (CWC)
19. Shri C. K.Aggarwal, Member (CWC)
20. Shri Narendra Kumar, Member (CWC)
21. Shri Anup Kumar Srivastava, Secretary (CWC)

22. Shri D. P. Mathuria, Director (RMC, CWC)

National Projects Construction Corporation Limited

23. Shri H. L. Chaudhury, CMD, NPCC

Water & Power Consultancy Services (India) Limited

24. Shri R. K. Gupta, CMD, WAPCOS

Central Ground Water Board

25. Shri K. P. Biswas, Chairman, CGWB
26. Shri S. K. Sinha, Scientis 'D' CGWB

At the outset, the Chairperson welcomed the Members to the sitting of the Committee. The Chairperson then welcomed the representatives of the Ministry of Water Resources, River Development & Ganga Rejuvenation to the sitting of the Committee convened to consider and examine the Demands for Grants (2015-16) of the Ministry of Water Resources, River Development & Ganga Rejuvenation.

2. After the introduction, the Secretary, Ministry of Water Resources, River Development & Ganga Rejuvenation briefed the Committee on the subject. Thereafter, highlights of the Demands for Grants (2015-16) were explained to the Members. The Members sought clarifications on various issues to which the representatives responded. The major concerns raised during discussion included the following:

(i) Under-utilisation of funds due to non-approval of Schemes;
(ii) Budgetary allocation under the Schemes and programmes related to cleaning of Ganga River;
(iii) Abatement of pollution in river Ganga;
(iv) Arsenic and fluoride contamination of ground water and National aquifer management Programme;
(v) Utilisation Certificate;
(vi) National Projects of Pranahita Chevela projet and Polavaram project and;

(vii) Pollution of river Godavari;

3. The Committee asked the Secretary, Ministry of Water Resources, River Development and Ganga Rejuvenation to furnish written replies to those queries raised by Members during the sitting which could not be replied by the representatives orally.

4. A copy of the verbatim proceedings of the sitting was kept for record.

The Committee then adjourned.

MINUTES - II

MINUTES OF THE ELEVENTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2015-2016) HELD ON WEDNESDAY, 22 APRIL, 2015

The Committee sat from 1500 hours to 1530 hours in Chairperson Chamber, Room No. 129, Parliament House Annexe, New Delhi.

PRESENT

Shri Hukum Singh – Chairperson

MEMBERS

LOK SABHA

2. Shri Radheshyam Biswas
3. Shri Devusinh Chauhan
4. Shri Tariq Hameed Karra
5. Shri Abhijit Mukherjee
6. Shri Murali Mohan Maganti
7. Shri Rodmal Nagar
8. Smt. Sathyabama V.
9. Shri Subhash Patel
10. Shri Lallu Singh

RAJYA SABHA

11. Shri Balwinder Singh Bhunder
12. Prof. Mrinal Miri
13. Shri A.V. Swamy
14. Smt. Naznin Faruque

SECRETARIAT

1	Shri A.K. Singh	-	Joint Secretary
2.	Shri S. Chatterjee	-	Director
3.	Smt. Rita Jailkhani	-	Additional Director

At the outset, the Chairperson welcomed the Members to the sitting of the Committee convened for consideration and adoption of Draft Report on Demands for Grants (2015-16) of the Ministry of Water Resources, River Development and Ganga Rejuvenation.

2. The Committee took up the above draft Report for consideration. After some discussion, the Committee adopted the Reports with slight modifications/amendments.

3. The Committee also authorized the Chairperson to finalise the Report in the light of minor suggestions given by the Members and also consequential changes arising out of factual verification by the Ministry and to present the Reports to both the Houses of Parliament.

The Committee then adjourned

(B) ANNEXURES

Annexure I
(vide para no. 6.5)

Revised Estimates and actual expenditure incurred on various plans under Clean Ganga Mission

(figs in crore)

Budget (RE)	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Non EAP	437	160	120.54	56.9	87
EAP	630	41.61	60.5	247.08	268
SCSP		15	12.46	5	0
Yamuna Action Plan- EAP					80
Yamuna Action Plan- Non EAP					18
National Ganga Plan					1500
Beautification of Ghats					100
Total	**1067**	**216.61**	**193.5**	**308.98**	**2053**
Expenditure (Actual release by Ministry)					
Non Externally aided projects	436.76	152.34	120.46	56.5	0
Externally aided projects	63	40.24	58.61	192.08	0
SCSP					0
YAP-EAP					0
YAP- Non EAP					4.36
JICA-Varanasi					0
SCSP			12.46	0	0
Total	**499.76**	**192.58**	**191.53**	**248.58**	**4.36**

Annexure II
(vide para no. 6.8)

New Initiatives proposed under Namami Gange

Objective	Programme	Sector	Activities
Nirmal Ganga	Infrastructure Development	Sewerage & Sanitation	*Rehabilitation and up-gradation of existing sewage treatment plants (STPs) along Ganga.*
			Pollution mitigation in open drains through "In situ treatment" etc. and other innovative methods
			Providing interception & diversion structures, STPs & identified essential associated interventions / infrastructure critical for maintaining water quality standards of Ganga & its tributaries in identified locations.
			Rural Sanitation schemes contemplated for improving sanitation and civic amenities in identified villages on the banks of river Ganga and to develop them as Ganga Grams to arrest the flow of pollution into the river and supplementing the programme of Ministry of Drinking Water and Sanitation in 1649 number of Gram Panchayats located on banks of river Ganga (MoDW&S/MoWR, RD & GR)
		River Front Management	*River Front Management and Ghat's developments in selected cities and towns including public amenities, etc*
		Industrial Pollution	*Industrial pollution abatement in major industrial clusters*
		Solid Waste Management	*Essential Solid Waste Management projects for towns / Ghats*
Aviral Ganga	Infrastructure Investments		*Misc. interventions aiming at improving flow & water availability*
			Interventions emerging from final report of consortium of IITs & GRBMP recommendations
Program Support & Sustainability	Institutional Development		*Institutional Development(augmentation of project implementation capacities on ground, capacity building, setting up of monitoring centres and Institutions)*
			National Ganga Monitoring Centre
			Support for preparation of Detailed Project Reports (DPRs) to keep a

Objective	Programme	Sector	Activities
			shelf of projects ready
			Capacity building of urban local bodies
	Research & Development		*Research, studies, pilots and training, workshops, seminars, publication etc.*
			Model interventions for non-point pollution mitigation, agricultural runoff etc.
			GIS based data, mapping, spatial analysis for Ganga basin and related applications
			Assessment of Special Properties of Ganga Water
			Study of communities depending on Ganga for their traditional livelihood
			Special guidelines for sand mining in Ganga
			Study of possible diversion of a portion of river Bhagirathi at a suitable location
	Ecological Sustainability	Habitat Improvement activities in Ganga Basin	*Action Plan for public amenities in rural / urban centres on the banks of river Ganga & its tributaries.*
			Safe disposal of flowers and other puja material, improved methods of last rites on river banks
		Bio Diversity Conservation	*Conservation of Aquatic life – special attention on Dolphin, Turtles and Ghariyals*
			Afforestation – Conservation of Flora
			Conservation of wetlands
			Other measures for ensuring habitat improvement & bio-diversity conservation
Public Participation	Communication & public outreach activities	Awareness Creation	*Media and Communication & public outreach activities and strengthening Public Participation in Ganga Rejuvenation and Public Awareness.*
			Ganga Task Force / Ganga Vahini
		Dissemination	*National & International Workshops, Seminar, Symposia, etc.*

Objective	Programme	Sector	Activities
			National Awards, fellowship programmes
			Other measures for strengthening public outreach, participation & communication
Any other activity, which flows from the objectives			